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10/637,402

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Michael N. Rosenheimer

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10/20/2006

DAFFER MCDANEIL LLP

P.O. BOX 684908

AUSTIN, TX 78768

EXAMINER

SCHINDLER, DAVID M

ART UNIT

PAPER NUMBER

2862

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/637,402 | <b>Applicant(s)</b><br>ROSENHEIMER ET AL. |  |
|                              | <b>Examiner</b><br>David Schindler   | <b>Art Unit</b><br>2862                   |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 8-13 and 15-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-13 and 15-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is in response to the communication filed 7/20/2006.

#### *Response to Arguments*

2. Applicant's arguments filed 7/20/2006 have been fully considered but they are not persuasive.

Applicant's arguments with regard to claims 8-18 are moot in view of a new grounds of rejection.

With regard to the last paragraph of page 3 of the Remarks, as well as lines 1-5, and paragraphs 1 and 2 of page 4 of the Remarks, the Examiner respectfully disagrees. The Examiner notes that the claims are directed towards, and therefore the field of endeavor of the invention is directed towards, a magnetic field sensor with various circuit components (see Claims 1 and 19). Both Fujita and Hosohara disclose a magnetic field sensor with various circuit components (see the top paragraph on page 328 of Fujita and the purpose and constitution portion of the abstract of Hosohara). Furthermore, Hosohara appears to disclose a magnetic field sensor (1), and storing into memory only those signals from the magnetic field sensor that exceed a predetermined limit ((Title / note eddy current flaw detection) and (Abstract, Purpose, Lines 1-4)), which appears to be a similar structure to that of the claimed invention. Also note paragraph [0013] starting on page 7, and paragraph [0016] on page 10 of the provide English translation of the Hosohara reference. Therefore, the Examiner respectfully disagrees with applicant.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 8, 10, 11, 12, 16, 17, 18, 19, 21, 22, 23, 25, 27, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. (herein referred to as "Fujita") (Portable magnetic field dosimeter with data acquisition capabilities) in view of Hosohara et al. (herein referred to as "Hosohara") (JP 4-324353).

As to Claim 8,

Fujita discloses a magnetic field sensor, and an analyzer unit for evaluation of signals from the magnetic field sensor, wherein the analyzer unit forms a differentiation as a function of time from signals of the magnetic field sensor ((Figure 1) and (Page 328, Right Column, IV. Software, Lines 1-4) and (Page 329, Right Column, (3) Magnitudes of B and dB/dt, Lines 1-3)), and at least one limit discriminator in the analyzer unit which compares multiple values computer from the signals of the magnetic

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field sensor with the predetermined limit (Page 329, Right Column, (5) Alarm threshold, Lines 1-12) and (Page 329, Right Column, (6) Data storage, Lines 1-12) and (Page 330, Left Column, Lines 1-2 at the top of the page)).

Fujita does not disclose at least one discriminator that stores only the computed multiple values in the memory when this limit is exceeded.

Hosohara discloses at least one discriminator that stores only the computed multiple values in the memory when this limit is exceeded (Abstract, Purpose and Consitution).

It would have been obvious to a person of ordinary skill in the art to modify Fujita to include at least one discriminator that stores only the computed multiple values in the memory when this limit is exceeded as taught by Hosohara in order to achieve a decrease in amount of memory data, a smaller size of the apparatus, and a higher speed of processing (Abstract, Purpose).

As to Claim 10,

Fujita discloses the device includes at least one memory associated with the analyzer unit, to store at least one of the signals of the magnetic field sensor and values obtained by processing the signals (Page 326, Top Center Paragraph which is above the Introduction, Lines 3-11).

As to Claim 11,

Fujita discloses the device includes at least one signaling unit associated with the analyzer unit (Page 329, Right Column, (5) Alarm Threshold, Lines 1-3).

As to Claim 12,

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Fujita discloses the magnetic field sensor and the analyzer unit are incorporated in a common housing ((Page 330, Left Column, VI. Mechanical and Operational Specifications, A. Size, Lines 1-4) and (Page 326, Right Column, I. Design Rationale and System Elements, Lines 1-8) and (Figure 1) and (Page 327, Right Column, Table I. Dosimeter components)).

As to Claim 16,

Fujita discloses means are provided for communication and data exchange (Page 326, Right Column, I. Design Rationale and System Elements, Lines 1-10).

As to Claim 17,

Fujita discloses the communication and data exchange means are an interface for linking an external computer and a memory card ((Page 326, Right Column, I. Design Rationale and System Elements, Lines 1-10) and (Page 330, Left Column, V. Readout Station, Lines 1-7)).

As to Claim 18,

Fujita discloses the magnet field sensor and the analyzer unit are jointly accommodated in a housing that is suitable for being fastened on a piece of clothing ((Page 330, Left Column, VI. Mechanical and Operational Specifications, A. Size, Lines 1-10) and (Page 330, Right Column, Line 1) and (Page 326, Right Column, I. Design Rationale and System Elements, Lines 1-8) and (Figure 1) and (Page 327, Right Column, Table I. Dosimeter components)).

As to Claim 19,

Fujita discloses an analyzer unit for evaluation of signals from the magnetic field

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sensor, wherein the analyzer forms a differentiation as a function of time from signals of the magnetic field sensor ((Figure 1) and (Page 328, Right Column, IV. Software, Lines 1-4) and (Page 329, Right Column, (3) Magnitudes of B and dB/dt, Lines 1-3)).

Fujita does not disclose storing into memory only those signals from the magnetic field sensor that exceed a predetermined limit.

Hosohara discloses storing into memory only those signals from the magnetic field sensor that exceed a predetermined limit ((Title / note eddy current flaw detection) and (Abstract, Purpose, Lines 1-4)).

It would have been obvious to a person of ordinary skill in the art to modify Fujita to include storing into memory only those signals from the magnetic field sensor that exceed a predetermined limit as taught by Hosohara in order to achieve a decrease in the amount of memory data, a smaller size of the apparatus, and a higher speed of processing (Abstract, Purpose, Lines 1-2).

As to Claim 21,

Fujita discloses the device includes at least one memory associated with the analyzer unit, to store at least one of the signals of the magnetic field sensor and values obtained by processing the signals (Page 326, Top Center Paragraph which is above the Introduction, Lines 3-11).

As to Claim 22,

Fujita discloses the device includes at least one signaling unit associated with the analyzer unit (Page 329, Right Column, (5) Alarm Threshold, Lines 1-3).

As to Claim 23,

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Fujita discloses the magnetic field sensor and the analyzer unit are incorporated in a common housing ((Page 330, Left Column, VI. Mechanical and Operational Specifications, A. Size, Lines 1-4) and (Page 326, Right Column, I. Design Rationale and System Elements, Lines 1-8) and (Figure 1) and (Page 327, Right Column, Table I. Dosimeter components)).

As to Claim 25,

Fujita discloses at least one limit discriminator is provided in the analyzer unit, which compares at least one value computer from the signals of the magnetic field sensor with the predetermined limit ((Page 329, Right Column, (5) Alarm threshold, Lines 1-12) and (Page 329, Right Column, (6) Data storage, Lines 1-12) and (Page 330, Left Column, Lines 1-2 at the top of the page)).

Fujita does not disclose at least one discriminator that stores only the computed multiple values in the memory when this limit is exceeded.

Hosohara discloses at least one discriminator that stores only the computed multiple values in the memory when this limit is exceeded (Abstract, Purpose and Consitution).

It would have been obvious to a person of ordinary skill in the art to modify Fujita to include at least one discriminator that stores only the computed multiple values in the memory when this limit is exceeded as taught by Hosohara in order to achieve a decrease in amount of memory data, a smaller size of the apparatus, and a higher speed of processing (Abstract, Purpose).

As to Claim 27,



Fujita discloses means are provided for communication and data exchange (Page 326, Right Column, I. Design Rationale and System Elements, Lines 1-10).

As to Claim 28,

Fujita discloses the communication and data exchange means are an interface for linking an external computer and a memory card ((Page 326, Right Column, I. Design Rationale and System Elements, Lines 1-10) and (Page 330, Left Column, V. Readout Station, Lines 1-7)).

As to Claim 29,

Fujita discloses the magnet field sensor and the analyzer unit are jointly accommodated in a housing that is suitable for being fastened on a piece of clothing ((Page 330, Left Column, VI. Mechanical and Operational Specifications, A. Size, Lines 1-10) and (Page 330, Right Column, Line 1) and (Page 326, Right Column, I. Design Rationale and System Elements, Lines 1-8) and (Figure 1) and (Page 327, Right Column, Table I. Dosimeter components)).

6. With regard to DE 19809076, note that the below cited locations refer to the English translation provided with the Office Action of 10/05/2005.

7. Claims 9, 13, 15, 20, 24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. (herein referred to as "Fujita") (Portable magnetic field dosimeter with data acquisition capabilities) in view of Hosohara et al. (herein referred

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to as "Hosohara") (JP 4-324353) and in further view of Haase et al. (herein referred to as "Haase") (DE 19809076).

As to Claim 9,

Fujita in view of Hosohara does not disclose the analyzer unit is designed that it forms an integral as a function of time from the signals of the magnetic field sensor.

Haase discloses the analyzer unit is designed that it forms an integral as a function of time from the signals of the magnetic field sensor (Page 18, Lines 3-11).

It would have been obvious to a person of ordinary skill in the art to modify Fujita in view of Hosohara to include the analyzer unit is designed that it forms an integral as a function of time from the signals of the magnetic field sensor as taught by Haase in order to determine the magnetic field stress on a person over an extended period of time (Page 9, First Full Paragraph, Lines 1-6).

As to Claim 13,

Fujita discloses an acoustical signaling means that is provided for signaling that a limit has been exceeded, and that the signaling means is controlled by the analyzer unit (Page 329, Right Column, (5) Alarm threshold).

Fujita in view of Hosohara does not disclose at least one optical signaling means provided for at least one of indicating measured values and signaling that a limit has been exceeded, and that the at least one optical signaling means is controlled by the analyzer unit.

Haase discloses at least one optical signaling means provided for at least one of indicating measured values and signaling that a limit has been exceeded, and that the

at least one optical signaling means is controlled by the analyzer unit ((Page 18, Lines 11-24) and (Page 19, Line 1) and (Figure)).

It would have been obvious to a person of ordinary skill in the art to modify Fujita in view of Hosohara to include at least one optical signaling means provided for at least one of indicating measured values and signaling that a limit has been exceeded, and that the at least one optical signaling means is controlled by the analyzer unit as taught by Haase in order to avoid a possible health risk (Page 19, Line 6).

As to Claim 15,

Fujita discloses the magnetic field sensor is a multi-dimensional field sensor (Figure 1).

Fujita in view of Hosohara does not disclose the analyzer unit computes at least one of a magnitude and an orientation of the magnetic field vector from the signals.

Haase discloses the analyzer unit computes a magnitude and an of the magnetic field vector from the signals ((Page 8) and (Page 9, Lines 1-4)).

It would have been obvious to a person of ordinary skill in the art to modify Fujita in view of Hosohara to include the analyzer unit computes a magnitude and an of the magnetic field vector from the signals as taught by Haase in order to determine the magnetic field at the device's current location.

As to Claim 20,

Fujita in view of Hosohara do not disclose the analyzer unit is designed that it forms an integral as a function of time from the signals of the magnetic field sensor.

Haase discloses the analyzer unit is designed that it forms an integral as

a function of time from the signals of the magnetic field sensor (Page 18, Lines 3-11).

It would have been obvious to a person of ordinary skill in the art to modify Fujita in view of Hosohara to include the analyzer unit is designed that it forms an integral as a function of time from the signals of the magnetic field sensor as taught by Haase in order to determine the magnetic field stress on a person over an extended period of time (Page 9, First Full Paragraph, Lines 1-6).

As to Claim 24,

Fujita discloses an acoustical signaling means that is provided for signaling that a limit has been exceeded, and that the signaling means is controlled by the analyzer unit (Page 329, Right Column, (5) Alarm threshold).

Fujita in view of Hosohara do not disclose at least one optical signaling means provided for at least one of indicating measured values and signaling that a limit has been exceeded, and that the at least one optical signaling means is controlled by the analyzer unit.

Haase discloses at least one optical signaling means provided for at least one of indicating measured values and signaling that a limit has been exceeded, and that the at least one optical signaling means is controlled by the analyzer unit ((Page 18, Lines 11-24) and (Page 19, Line 1) and (Figure)).

It would have been obvious to a person of ordinary skill in the art to modify Fujita in view of Hosohara to include at least one optical signaling means provided for at least one of indicating measured values and signaling that a limit has been exceeded, and

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that the at least one optical signaling means is controlled by the analyzer unit as taught by Haase in order to avoid a possible health risk (Page 19, Line 6).

As to Claim 26,

Fujita discloses the magnetic field sensor is a multi-dimensional field sensor (Figure 1).

Fujita in view of Hosohara do not disclose the analyzer unit computers at least one of a magnitude and an orientation of the magnetic field vector from the signals.

Haase discloses the analyzer unit computes a magnitude and an of the magnetic field vector from the signals ((Page 8) and (Page 9, Lines 1-4)).

It would have been obvious to a person of ordinary skill in the art to modify Fujita in view of Hosohara to include the analyzer unit computes a magnitude and an of the magnetic field vector from the signals as taught by Haase in order to determine the magnetic field at the device's current location.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Schindler whose telephone number is (571) 272-2112. The examiner can normally be reached on M-F (8:00 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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David Schindler  
Examiner  
Art Unit 2862

DS



EDWARD LEEKOWITZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800